

METHODS AND SYSTEMS FOR GENERATING
PROFILE CURVES OF SOLID MODELS

ABSTRACT OF THE DISCLOSURE

An algorithm programmed into a computer permits the computer to automatically generate a two-dimensional profile curve of an electronically represented three-dimensional solid model without creating separate intersecting planes extending through the three-dimensional solid. The computer is configured to query the three-dimensional solid to identify faces on the three-dimensional solid. The query of the solid begins after a face edge is identified as a seed face and continues from the identified face to each adjacent revolved face circumscribing the solid. As each revolved face is located, a representative curve for the face is created in the two-dimensional plane.